OIL FILTERS

HAZARDS & RULES

Base Materials - Hazards & Impacts

The base materials in regular sized oil filters (i.e., filters that fit most automobiles and light trucks) have no hazards or impacts. Larger filters, however, such as those used in heavy-duty vehicles, are likely to be terne-plated. Terne is an alloy of tin and lead, and is used to strengthen the shells of larger oil filters.

Lead can get into the body by ingesting it (this usually occurs when putting hands or other objects contaminated with lead dust into the mouth) or by breathing lead dust. The effects of lead on the adult body include the following: problems with reproduction, digestion, and with memory and concentration; high blood pressure; nerve disorders; and muscle and joint pain. Lead is even more dangerous to children because their bodies are more sensitive to lead's effects and because their bodies absorb more lead than do adults' bodies.

Additives and Contaminants - Hazards & Impacts

When a used oil filter is removed from a vehicle, approximately one pint of oil may remain trapped in the filter. The used oil and sludge that remain in the filter may contain contaminants such as heavy metals that are picked up as the oil circulates through the engine. High concentrations of heavy metals may cause used filters to demonstrate hazardous waste characteristics, making the filters subject to hazardous waste regulations if the filters are not properly drained.

Regulatory Overview

There are several management options for handling your regular size used oil filters. The regulations that you must follow depend on whether you properly drain your used filters and what you subsequently do with them (e.g., recycle, burn, discard.)

Properly drained filters are exempt from Indiana's hazardous waste regulations and may be disposed as solid waste.

Undrained filters may be managed under Indiana's Used Oil Rule if the filters are recycled or burned for energy recovery. By following the Used Oil Rule, your shop can ease its regulatory requirements and reduce the environmental impact associated with disposal.

Undrained filters that are discarded are subject to all applicable solid and hazardous waste rules. See Chapter 3 for information on managing your hazardous wastes. Note that, even if your used oil filters are not considered to be a hazardous waste, they still cannot be sent to a landfill because of the restrictions on wastes containing free liquids (liquids that will readily pour.) Instead, the filters must be managed under IDEM’s solid waste rules and sent to a

facility that is capable of handling liquid waste or that can solidify the waste prior to disposal.

Terne-plated filters that are properly hot drained and recycled are exempt from Indiana's hazardous waste regulations. Terne-plated filters handled in any other manner must be managed as a hazardous waste. See Chapter 3 for information on managing your hazardous wastes.

REGULATIONS FOR REGULAR (NON-TERNE PLATED) USED OIL FILTERS

	Hot Drained	Not Drained
Recycled	Exempt from hazardous waste regulations	Used Oil Rule
Burned for Energy Recovery	Exempt from hazardous waste regulations	Used Oil Rule
Discarded	Exempt from hazardous waste regulations	Solid & Hazardous Waste Rules

MANAGEMENT RESPONSIBILITIES

As stated above, managing your used oil filters may be done in a number of different ways. Listed below are the regulations that you must follow for each of the management options. Also listed are suggested practices that you should follow to ease your regulatory requirements and improve the environmental health of your shop.

You Must:

- **!** properly manage the oil drained from the filters (see the *Oil* section in Chapter 5 for information.)
- **!** if you choose to hot drain your used oil filters, you must:
  - puncture the filter anti-drain back valve or the filter dome end and hot drain the filters; or
  - perform any other equivalent hot draining method that will remove the used oil so that the filters contain no free liquids. Equivalent methods include crushing or dismantling the filters.

  The term "hot drain" means to immediately drain the filter after it is removed from a vehicle that is at or near the engine's operating temperature.
- **!** if you do not hot drain your filters, you must either follow the requirements of the Used Oil Rule or determine if the filters demonstrate hazardous waste characteristics.
  - If you plan to follow the Used Oil Rules, see the *Oil* section in Chapter 5.

- Filters that demonstrate hazardous waste characteristics are considered to be a hazardous waste and must be managed accordingly. See Chapter 3 for information on managing your hazardous wastes and Chapter 4 for information on recordkeeping and reporting requirements.

! manage terne-plated filters as a hazardous waste, unless they are properly hot drained and recycled.

You Should:

! follow the Used Oil Rule rather than the solid and hazardous waste rules (for oil that is drained from the filters.)
! hot-drain your filters for a minimum of 12 hours.
! store all oil filters in leak-proof containers to prevent spills.
! label storage containers "Used Oil Filters."
! recycle your used filters, rather than burning or discarding them. If you cannot recycle your used filters, burning them for energy recovery is preferred to disposal.
! manifest all properly drained oil filters on a bill of lading to a scrap metal recycling facility.
! maintain records regarding the transportation and recycling of used oil filters.
! purchase only non terne-plated oil filters from your filter supplier.
! if you are unsure as to whether the filters you are purchasing are terne-plated, call the manufacturer or supplier to ask.
! drain and recycle your terne-plated filters rather than managing them as a hazardous waste.

You Should Consider:

! purchasing an oil filter crusher and/or shredder to recover any remaining waste oil and to reduce the volume of filters disposed and associated disposal costs.
! using a service company to shred or crush your used filters to recover residual used oils prior to sending the filters to a scrap metal recycling facility.

BACKGROUND ON OPTIONS TO CONSIDER

Crushing used oil filters is the most effective way to remove any remaining oil. Crushing also allows you to fit more filters into each drum, and, because many service companies charge you by the drum (rather the weight of the drum or number of filters in the drum), your shop can reduce the transportation and/or disposal costs associated with used oil filters.

You may either purchase equipment to crush the filters yourself or you may send the filters to a service company to have the filters crushed and then sent to a recycler. A list of oil filter transporters, recyclers, and crushing machine vendors may be obtained via the Fax-On-Demand system.